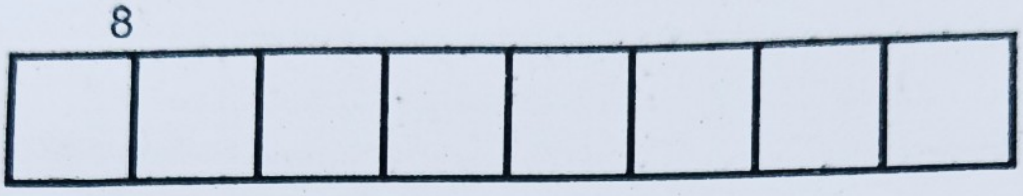
SECTION A: 40 MARKS

Attempt **all** *questions in this section.*
Questions **1** to **20** carry **2** marks each.

1. **Work out:** 65 + 43

2. **Shade** $\frac{4}{8}$ of the figure below.



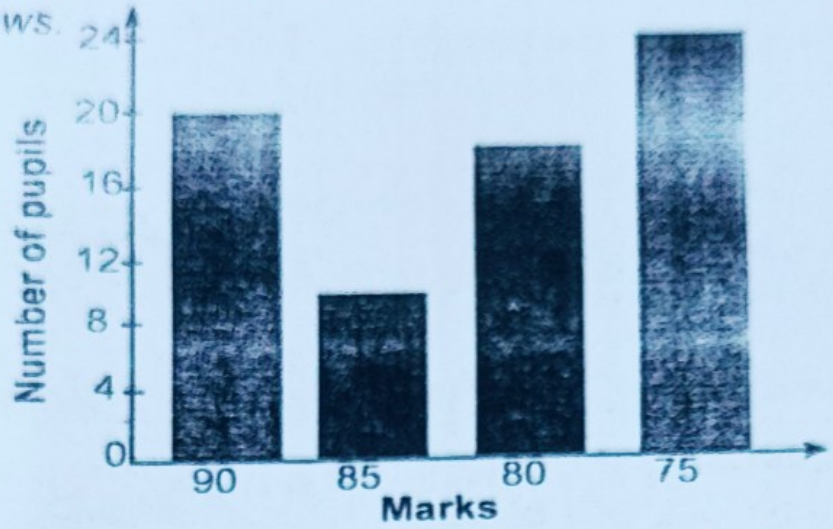
3. Write **40,001** in words.

4. Given that set **A**={1,2,3,4,5,6} and set **B**={1,3,5,7,9}.
   List the elements in **A∩B**.

5. Find the next number in the sequence:
   19, 15, 13, 9, 7, _____

6. Write **219** in Roman numerals.

The bar graph below shows marks scored by pupils in an examination. *Study the graph and use it to answer the question that follows.*



7. Find the total number of the pupils who scored above 80 marks.

8. Write **0.07050** in standard form.

9. Work out: $6 - (0.5)^2$

10. **Solve:** $t - 3 = 2$(finite 5)

11. Find the perimeter of a **square** whose area is $400m^2$.

12. Given that $2b = 8$, find the **value** of $5b$.

13. One afternoon, Mayo slept for 2 hours and woke up at the time shown on the clock face below. At what time did she go to bed?

14. A **250g** packet of groundnuts costs **sh.500**. How much will a parent pay for packets that weigh **2kg**?

15. Use a protractor to draw an angle of **105^0**.

16. **Simplify:** $\frac{1}{2}(2a - 8)$

17. Kato bought a goat for **sh.190,000**. At what price should he sell it in order to gain **sh.45,000**?

18. Given that  represents 30 balls, how many balls are represented by  ?

19. The interior angle of a regular polygon is **135°**. Find the number of sides of the polygon.

20. Given that $2^m \times 5^n = 200$, find the value of **m** and **n**.

16. **Simplify:** $\frac{1}{2}(2a - 8)$

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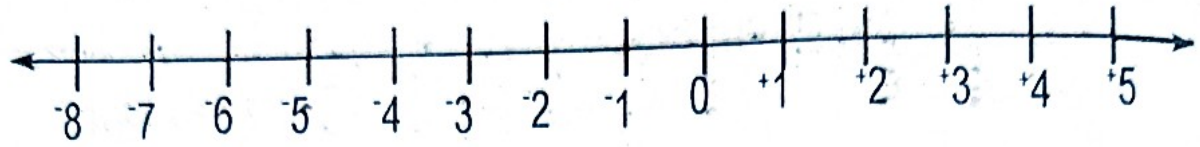
SECTION B: 60 MARKS

Attempt all questions in this section.

Marks for **each part** *of the question are* **indicated** *in the brackets.*

21.(a) **Work out:** $-4 - {}^{-}7$ using the number line below. *(03 marks)*



(b) Find the solution set that satisfies the inequality below;

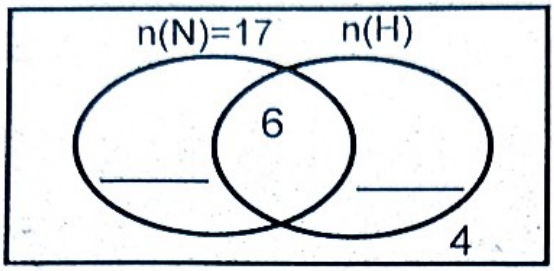
$2<x<7$ *(02 marks)*

22.(a) Using a ruler, a pencil and a pair of compasses only, construct a triangle JKL in which JK=7 cm, angle JKL = 60º and angle KLJ =45º. *(04 marks)*

(b) Measure line KL. *(01 mark)*

(H) only, 6 use both nets and hooks, and 4 use other fishing equipment.

(a) Complete the Venn diagram below using the information given above. *(02 marks)*



(b) If **24** fishermen use only one of the mentioned fishing equipment;

i) find the value of **k**. *(02 marks)*

ii) find the **total** number of the fishermen in the whole group. *(02 marks)*

24. The number of cows on Gateete's farm decreased in the ratio of **2:5** after selling 36 cows.

(a) **Calculate** the total number of cows that Gateete's farm had before selling. *(02 marks)*

(b) Find the number of cows that **remained** on the farm. *(02 marks)*

(02 marks)

25.(a) **Solve** for p: $\frac{1}{2}p + 3p = 21$

(b) **Solve** for y: $3(y+1)-2(4-y)= 25$ *(03 marks)*

26.Shamim went shopping and bought the fruits shown in the table below:

Item	Quantity	Unit cost	Amount
pineapples	2 pineapples	Sh.4,200 each pineapple	sh.8,400
oranges	6 oranges	Sh._____for 3 oranges	sh.30,000
apples	_____apples	Sh.1,500 an apple	sh._____
Total expenditure			sh.42,900

(a) Complete the table *(04 marks)*

(b) If Shamim remained with **Sh.5,000**, how much did she have at first?

(02 marks)

27. In a class, there are 40 girls and 60 boys. One Friday, $\frac{1}{4}$ of the were absent and $\frac{2}{3}$ of the boys were present.

(a) Find the number of pupils who were absent that Friday.

(03 marks)

(b) Find the fraction of the whole class that was present that Friday.

(02 marks)

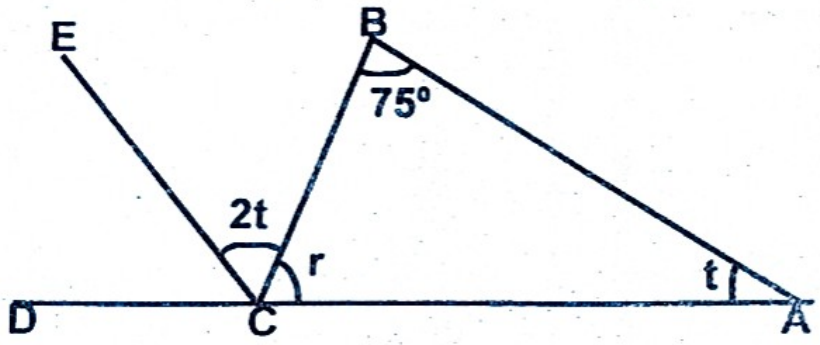
28. The radius of a wheel of a wheelbarrow is $(x - 4)$ cm and its diameter is $(x + 10)$ cm;

(a) Find the **value** of **x**.

(02 marks)

(b) If the wheelbarrow is pushed through a distance of 440 metres, find the number of revolutions it will make. *(03 marks)*

29. In the figure below, AD is a straight line, angle ECD = angle ECB and ABC is a triangle. *Use it to answer the questions that follow.*



Find the size of;

(a) angle **t**. *(02 marks)*

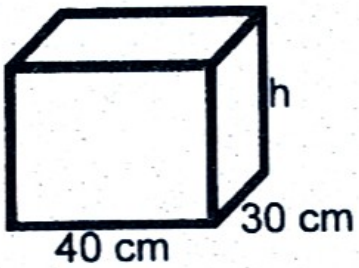
(b) angle **r** *(02 marks)*

30. Teo left her home at 7: 45 am and drove at an average speed of 10 metres per second for 30 minutes to her work place.

(a) At what time did Teo arrive at her work place? *(02 marks)*

(b) Calculate the **distance** in kilometres between Teo's home and her place of work. *(03 marks)*

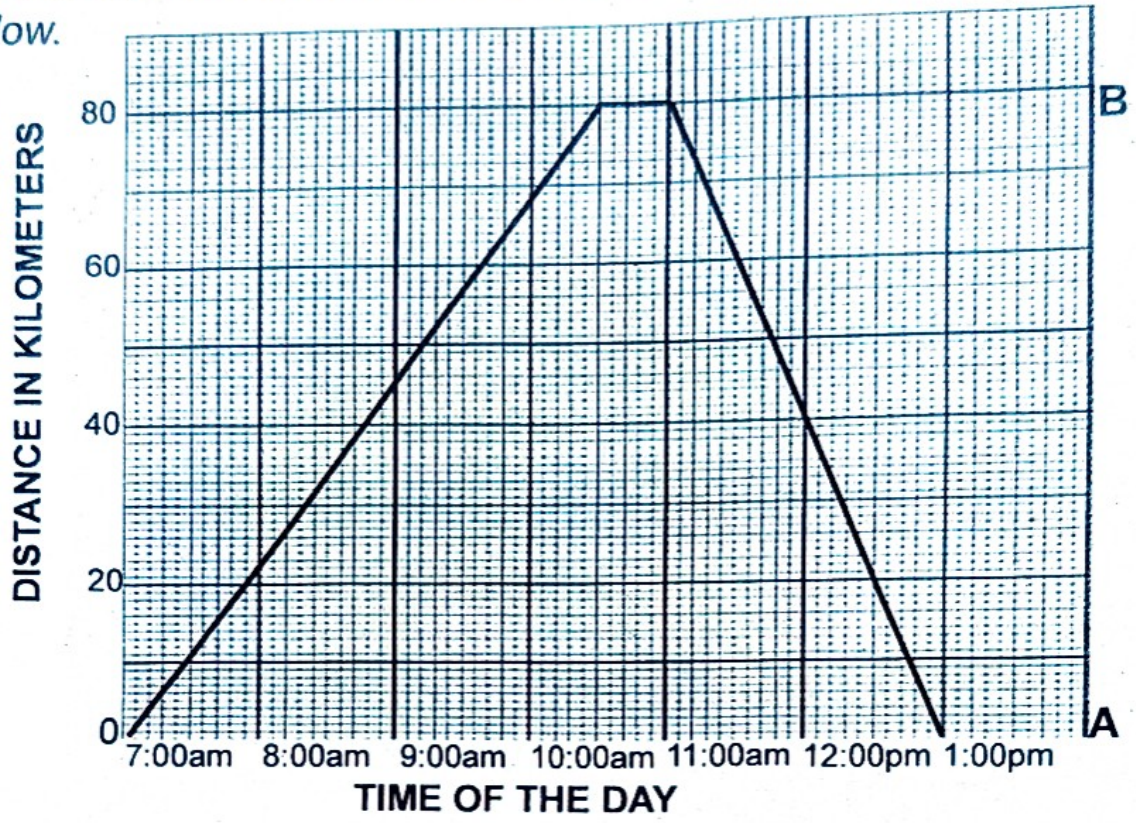
31. A tap pouring 7 litres of water per hour, filled the tin below in 12 hours.



(a) Find the **capacity** of the tin in litres. *(02 marks)*

(b) Calculate the **height** (h) of the tin in cm. *(03 marks)*

32. The travel graph below shows a journey by bus from town **A** to town **B** and back to town **A** . *Use it to answer the questions that follow.*



(a) Find the total time taken by the bus over the entire journey.

(01 mark)

(b) How much longer did the bus take to travel from town **A** to town **B** than it took to travel from town **B** to town **A**? *(02 marks)*

(c) Calculate the average speed of the bus over the whole journey.

(02 marks)